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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,209	01/12/2001	Michael Gough	60333-302802	2681

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DR. MICHAEL ROSTOKER  
P. O. BOX 1639  
LOS ALTOS, CA 94023-1639

EXAMINER

SORRELL, ERON J

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/760,209	<b>Applicant(s)</b> GOUGH, MICHAEL	
	<b>Examiner</b> Eron J Sorrell	<b>Art Unit</b> 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) 29 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 30, and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Newly submitted claims 29 and 32 are directed toward inventions that are independent or distinct from the invention originally claimed for the following reasons: The originally claimed invention is directed toward a ***system for accelerating data transfer between databases*** comprising interfacing the databases to both a first network with a first data rate and laser network with a second data rate classified in 709/249. Newly submitted claim 29 is directed toward ***a network platform*** comprising concave constructs, a plurality of computing units comprising lasers and laser detectors, and laser-aiming mechanisms allowing communication between computing units classified in 709/238. Newly submitted claim 32 is directed toward ***a method for aiming lasers*** classified in 372/9.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 29 and 32 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Objections***

2. Claim 30 is objected to because of the following informality: at the last line of the claim, "aid network..." should read "said network..." Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 3 contains the trademark/trade name Ethernet. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source

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of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark, or trade name. In the present case, the trademark/trade name is used to identify/describe a high speed LAN and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al. (U.S. Patent No. 5,077,732 hereinafter "Fischer").

8. Referring to claim 30, Fischer teaches a multi-mode network comprising:

a non-laser network having a first maximum transmission rate (see lines 13-33 of column 6; note the common operational capabilities comprise the non-laser network);

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a laser network having a second maximum transmission rate greater than said first maximum transmission rate (See lines 13-33 of column 6 and lines 23-37 of column 10; note the enhanced operational capabilities comprise the laser network and "open-air optical communication link" is a laser);

a plurality of computing units coupled to both said non-laser network and said laser network (see figure 1 and paragraph bridging columns 5 and 6); and

a data switch transferring data from said network to at least one laser when a data rate of said network is determined to be better handled by said laser network (see lines 23-37 of column 10).

9. Referring to claim 31, Fischer teaches a method for providing a multi-mode network comprising:

sensing a data rate between a first node and a second node that are coupled together by both a non-laser transmission medium and a laser transmission medium (see lines 23-37 of column 10); and

switching between said non-laser transmission medium and said laser transmission medium based upon said data rate (see lines 23-37 of column 10).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3,7,8,12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (U.S. Patent No. 6,681,116) in view of Fischer et al. (U.S. Patent No. 5,077,732 hereinafter "Fischer").

12. Referring to system claim 1, Johnson teaches a system, for accelerating data transfer between networked databases comprising:

a plurality of databases coupled by a network (see lines 9-30 of column 6); and

at least one laser unit coupled to each database for communicating data between the databases via free space by way of a laser beam at a rate faster than that which the network is capable (see lines 9-30 of column 6).

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Johnson fails to explicitly set forth the limitation of a data rate monitor operative to enable the at least one laser unit when the data rate meets a condition wherein data communication is improved using the at least one laser unit, however, Johnson does teach using the most appropriate one of the free-space laser and wireless system based on cost and criticality of the data (see lines 31-33 of column 6).

Fischer teaches in an analogous system, a data rate monitor operative to enable the at least one laser unit when the data rate meets a condition wherein data communication is improved using the at least one laser unit (see paragraph bridging columns 8 and 9 and lines 23-37 of column 10).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Johnson with the above teachings of Fischer. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification in order to be able to dynamically change the data rate between communications based on particular network conditions as suggested by Fischer (see lines 23-37 of column 10).

13. Referring to system claim 2, Johnson discloses the network comprises a router (see items labeled "ROUTER" in figure 3).



14. Referring to system claim 3, Johnson teaches the network is an Ethernet (see lines 32-39 of column 1).

15. Referring to system claim 7, Johnson discloses the laser unit comprises a receiver and a transmitter (see lines 23-41 of column 2).

16. Referring to system claim 8, Johnson teaches the databases are positioned in a single housing (see lines 1-7 of column 6).

17. Referring to system claims 12 and 13, Johnson teaches the laser units communicate the data between the databases upon a rate of the communication exceeding a predetermined amount to a single address in one of the database (see lines 50-59 of column 1).

18. Claims 4-6, 14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view Fischer as applied to claim 1 above and further of Bloom (U.S. Patent No. 6,323,980).

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19. Referring to system claims 4-6, the combination of Johnson and Fischer fails to teach each a plurality of laser units being mounted on the database and move with two degrees of freedom.

In an analogous system and method, Bloom teaches a plurality of laser units being mounted on computers that move with two degrees of freedom (see lines 1-20 of column 2, lines 39-55 of column 3 and paragraph bridging columns 3 and 4).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combination of Johnson and Fischer with the above teachings of Bloom. One of ordinary skill in the art would have been motivated to make such modification in order to provide a clear line of sight between the laser transceivers as suggested by Bloom (see paragraph bridging columns 3 and 4).

20. Referring to claim 14, Bloom teaches the laser units are movably positioned into alignment prior to communicating (see paragraph bridging columns 3 and 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Johnson and Fischer with the teachings of Bloom in order to ensure the proper transceivers are able to communicate.

21. Referring to claim 16 and 17, Bloom teaches the laser beam of the laser unit is traced prior to the laser units communicating the data in order to determine whether the laser units are capable of communicating the data and wherein an alternate path for the laser beam is determined if the trace is unsuccessful (see paragraph bridging columns 5 and 6).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Johnson and Fischer with the above teachings of Bloom. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification in order to ensure the transmitter and receiver are physically capable of communicating via the laser unit.

22. Referring to claim 18, Johnson discloses carrying out communication with the network if the communication is unable to be carried out via the laser units (see lines 31-45 of column 6).

23. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view Fischer as applied to claim 1

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above and further in view of Pasanen (U.S. Patent No. 6,587,450).

24. Referring to system claim 9, the combination Johnson and Fischer fails to teach the housing has a reflective surface positioned therein for reflecting the laser beam between laser units.

Pasanen teaches using a reflective surface to carry out transmission of laser beams from a source to a destination (see paragraph bridging columns 4 and 5).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Johnson and Fischer with the above teachings of Pasanen. One of ordinary skill in the art would have been motivated to make such modification in order to maximize the possibilities a source and a destination can communicate.

25. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Fischer as applied to claim 1 above and further in view of Heflinger (U.S. Patent No. 5,726,786).

26. Referring to claims 10 and 11, the combination of Johnson and Fischer fails to teach the housing has a substantially hemispherical configuration or a substantially spherical configuration.

Heflinger teaches, in an analogous system, laser units within a housing having a hemi-spherical configuration and a spherical configuration (see figures 2 and 3 and paragraph bridging columns 16 and 17 lines 48-63 of column 20).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Johnson and Fischer with the above teachings of Heflinger. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification in order to provide a free-space communication system using simultaneous and uniform transmission of data as suggested by Heflinger (see lines 29-31 of column 8).

27. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Fisher in view of Bloom as applied to claim 14 above and further in view of Wood, Jr. (U.S. Patent No. 6,466,771).

28. Referring to claim 15, the combination of Johnson, Fischer, and Bloom fails to teach the limitation of movably positioning the laser unit based on a look-up table.

Wood, Jr. teaches a system wherein a look-up table is used for positioning the wireless devices for communication (see lines 28-40 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Johnson, Fischer, and Bloom with the above teachings of Wood, Jr. One of ordinary skill in the art would have been motivated to make such modification in order to quickly determine the positions of the destination.

#### ***Response to Arguments***

29. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

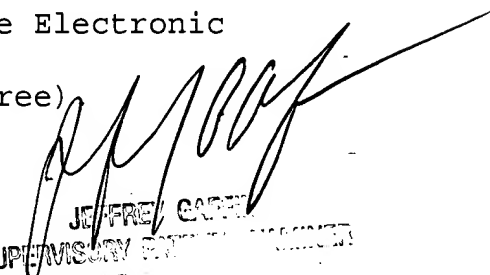
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 571 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EJS  
December 2, 2004

  
JEFFREY C. CARTER  
SUPERVISORY ENGINEER  
TECHNOLOGY